

REMARKS

Careful consideration has been given to the Official Action of November 20, 2006 and reconsideration of the application is respectfully requested.

Claim 1 has been amended to define more clearly the invention. Support for those amendments can be found, for example, at page 5, lines 1-4, and page 6, lines 1-10.

Claim 3 has been amended accordingly.

Claims 6-13 are new. New claims 6-8 generally correspond to claims 1-3. Support for the new claims can be found, for example, at page 4, line 18 to page 5 line 7.

Claim 1 has been rejected by the Examiner under 35 USC 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-3 have been rejected by the Examiner under 35 USC 102(b) as allegedly being anticipated by or, in the alternative, under 35 USC 103(a) as allegedly being obvious over US 4,507,342 (Kielbania).

The claims now presented comply with 35 USC 112, second paragraph, and are clearly distinguished and patentable over Kielbania as will be discussed hereafter.

The term “synthetic fiber fabric” is well known in the art and is clear to persons having ordinary skill in the art:

It is well known in the art that a synthetic fiber fabric is a fabric made with synthetic fiber(s), e.g. man-made fiber(s).

As mentioned in paragraph 2 of the present specification, the technique of etching a pattern is only applied to natural cellulose fiber fabrics and there is no commercially available synthetic fiber fabric having translucent patterns thereon. It is clear that “synthetic fiber fabric” is a term relative to (in contrast with) “natural cellulose fiber”. As discussed above, the term “synthetic fiber fabric” is a terminology commonly used in the textile industry. As is well known in the art, the synthetic fiber fabric which can be used in the claimed invention includes, for example, polyamide, polyacrylonitrile, polyester, and polypropylene. In this regard, Applicant notes that the term “synthetic fiber fabric” is used in the claims of many issued US patents, including US 7,117,633 (claim 9), US 4,964,174 (claim 3), US 5,030,229 (claim 14) (copies of the cover pages and the relevant claim pages of those patent publications are enclosed herewith for the Examiner’s reference). Accordingly, it is respectfully submitted that the term “synthetic fiber fabric” is clear to persons having ordinary skill in the art and persons having ordinary skill in the art would be able to select appropriate synthetic fiber fabric in light of the disclosure of the present specification. Therefore, the scope of the claims is clear and it is not necessary to further define the term “synthetic fiber fabric” in the claims.

The claimed invention is not anticipated by Kielbania

The claimed invention is directed to a process of producing a synthetic fiber fabric having a translucent pattern thereon. This is achieved by printing a paste comprising a transparent printing developer onto a surface of the fabric and, after formation of the printed pattern, treating the printed fabric with an etching agent that upon contact with and acceleration by the transparent printing developer, forms the translucent pattern on the fabric. Enclosed herewith is a piece of a synthetic fiber fabric sample produced by the claimed invention for the Examiner's reference.

In contrast, Kielbania is concerned with treating polyolefins, which have inert surfaces and thus are not readily bonded by other materials, so that polymers can be better bonded to polyolefin surfaces (see Abstract and column 1, lines 9-17). As will be discussed in detail below, Kielbania does not teach or suggest a process to form a translucent pattern on a synthetic fabric, and in any event does not teach or suggest printing a paste comprising a transparent printing developer onto a surface of the fabric, and after formation of the printed pattern, treating the printed fabric with an etching agent.

Specifically, Kielbania is directed to an article comprising an untreated polyolefin substrate and adherent thereto, a blend of a first latex polymer and a vinyl addition latex polymer of monomers consisting essentially of at least 5% by weight of a primary monomer selected from three specific monomers. The adherent polymer has surface energy properties such as to form a stable bond with the substrate. Kielbania is characterized by the vinyl addition latex polymer of monomers consisting essentially of at least 5% by weight of a primary monomer selected from three specific monomers.

Referring to Example 18b and Examples 18a and b of Kielbania, a printing paste is prepared by mixing the vinyl addition polymer (containing quaternary ammonium salt vinyl monomer), other additives, and sodium bicarbonate, and is applied to nonwoven polypropylene fabric. The quaternary ammonium salt provides excellent dye pickup for polypropylene and the sodium bicarbonate acts as catalyst (column 13, line 68 to column 14, line 3). The printing paste and etching agent are mixed, i.e. they are not applied in separate steps.

The claimed invention is not anticipated by Kielbania for the following reasons:

Kielbania does not teach or suggest a printing step prior to an etching step (for example, using sodium hydroxide, sodium hydrogen carbonate or sodium carbonate) as required by the amended claims.

Furthermore, Kielbania does not teach or suggest printing a paste comprising a transparent printing developer (for example, a quaternary ammonium salt) onto a surface of the fabric to form a printed pattern thereon. In other words, in the claimed invention, the transparent printing developer (for example, a quaternary ammonium salt) is used in the printing paste during the printing step, but sodium hydrogen carbonate is used in a subsequent etching step on the printed fabric. In contrast, Kielbania requires mixing quaternary ammonium salt and sodium bicarbonate to form the printing paste (Example 18a and 18b).

It follows that Kielbania fails to teach or suggest, and is not able to produce, a translucent pattern on an article (including synthetic fiber fabric). This is clearly

distinguished from the claimed process to produce a synthetic fiber fabric having a translucent pattern thereon.

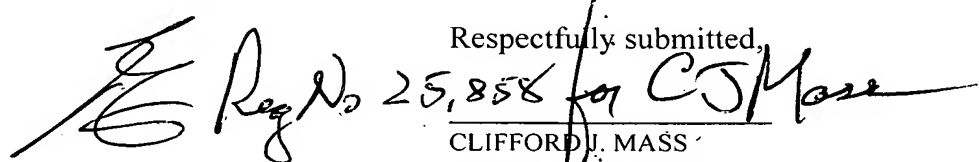
The claimed invention is non-obvious over Kielbania:

In the absence of the disclosure of the claimed invention, persons having ordinary skill in the art would not be motivated in light of the disclosures of Kielbania to (i) use a prior printing step to print a paste comprising a transparent printing developer onto a surface of the fabric to form a pattern thereon and (ii) thereafter to obtain a translucent pattern on the fabric by etching.

In fact, as discussed above, Kielbania is directed to a different technical problem, and in any event does not teach or suggest producing a translucent pattern on a synthetic fiber fabric.

Therefore, the claimed invention is not only clearly distinguished from Kielbania, but also would not be obvious in view of Kielbania.

In view of the above action and comments, it is respectfully submitted that the application is in condition for allowance, and favorable reconsideration of the application as amended is earnestly solicited.

 Respectfully submitted,
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(12) **United States Patent**
Schmidt

(10) **Patent No.:** **US 7,117,633 B2**
(45) **Date of Patent:** **Oct. 10, 2006**

(54) **FOLIAGE WRAP THERMAL BAG**

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(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 146 days.

(21) Appl. No.: 11/001,550

(22) Filed: **Dec. 1, 2004**

(65) **Prior Publication Data**

US 2005/0076561 A1 Apr. 14, 2005

Related U.S. Application Data

(63) Continuation-in-part of application No. 10/673,982,
filed on Sep. 30, 2003, now abandoned.

(60) Provisional application No. 60/449,337, filed on Feb.
24, 2003.

(51) Int. Cl.
A01G 13/02 (2006.01)

(52) U.S. Cl. 47/23.3

(58) **Field of Classification Search** 47/20.1,
47/23.3, 23.2, 23.1, 19.2, 32.4

See application file for complete search history.

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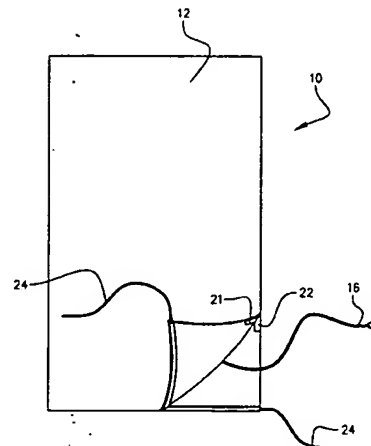
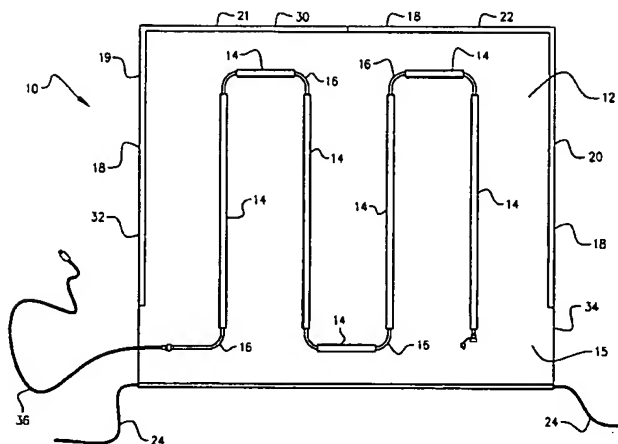
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(57) **ABSTRACT**

A one piece fabric wrap has multiple elongated pockets
sewn into an inner surface. A cylindrical rope light or heat
tape is positioned within the multiple pockets and hook and
loop material is attached to an outer perimeter of the inside
surface to provide closure of the fabric wrap around frost
challenged plants. A drawstring attached along a bottom
edge of the fabric wrap secures the assembled foliage wrap
around the base of the plant.

17 Claims, 3 Drawing Sheets



3

multiple elongated pockets having an opening at each end mounted to an inner surface of the fabric; and
a low wattage heating mechanism contained within the multiple open ended pockets.

2. The foliage wrap according to claim 1, wherein the heating mechanism is a cylindrical rope light. 5

3. The foliage wrap according to claim 1, wherein the heating mechanism is a heating tape.

4. The foliage wrap according to claim 1, wherein the heating mechanism is adapted to allow a plurality of plant enclosures to be cascaded on a common extension cord. 10

5. The foliage wrap according to claim 1, wherein the heating mechanism is powered by 120V prime power.

6. The foliage wrap according to claim 1, wherein the heating mechanism is powered by a 12V battery. 15

7. The foliage wrap according to claim 1, wherein the fabric wrap is a machine washable material.

8. The foliage wrap according to claim 1, wherein the multiple pockets are attached by sewing.

9. A method of protecting outdoor plants from cool temperatures comprising: 20

providing a natural or synthetic fiber fabric in a square or rectangular shape;

attaching elongated open ended pockets on an inner surface of the fabric;

threading a heating mechanism through the elongated pockets of the fabric;

attaching a hook and loop material to a majority of an outer perimeter of the fabric inner surface, the hook and loop material being mounted in an opposing position so 25

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that the hook and loop will pair to secure the fabric around the foliage of a plant;

attaching a drawstring to an outer perimeter of the fabric, the drawstring adapted to tighten the fabric around the base of the plant wherein an assembled foliage wrap is created;

covering the plant with the assembled foliage wrap, the foliage of the plant being substantially encased by the foliage wrap; and

connecting the heating mechanism to an electrical power source.

10. The method according to claim 9, wherein the heating mechanism employed is a cylindrical rope light.

11. The method according to claim 9, wherein the heating mechanism is a heating tape.

12. The method according to claim 9, wherein the heating mechanism is adapted to allow a plurality of foliage wraps to be cascaded on a common extension cord.

13. The method according to claim 9, wherein the heating mechanism is powered by 12V battery.

14. The method according to claim 9, wherein the heating mechanism is powered by 120V prime power.

15. The method according to claim 9, further comprising cleaning the foliage wrap in an automatic washing machine.

16. The method according to claim 9, wherein the plants are subtropical types.

17. The method according to claim 9, wherein the plants are tropical types.

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United States Patent [19]
Martin

[11] **Patent Number:** 4,964,174
[45] **Date of Patent:** Oct. 23, 1990

[54] **GLOVES FOR MECHANICS**

[76] **Inventor:** Linda M. Martin, 3H Research Rd.,
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[21] **Appl. No.:** 304,180

[22] **Filed:** Jan. 31, 1989

[51] **Int. Cl.⁵** A41D 19/00

[52] **U.S. Cl.** 2/161 R; 2/163;
2/164

[58] **Field of Search** 2/159, 164, 163, 161 R,
2/167, 161 A, 16, 20

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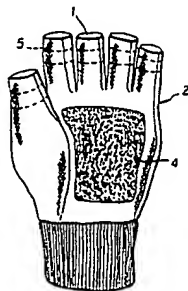
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[57] **ABSTRACT**

A protective glove pair, comprising an outer glove and an inner glove within the outer glove, the inner glove being optionally removable from the outer glove, wherein the outer glove comprises a glove body and protective finger and thumb portions, the protective portions comprising open-ended tubes from the glove body to cover the fingers and thumb to a distance between the metacarpophalangeal joints and the distal knuckle of each finger and thumb, and the inner glove being flexible and tight fitting to the hand and comprising a natural or synthetic rubber or synthetic polymer.

6 Claims, 1 Drawing Sheet



ity will depend on the particular application for which the gloves are intended. For example, the inner glove may be held in place within the outer glove by means of the frictional resistance between the inner and outer gloves, thereby providing easy removal of the inner glove from the outer glove. Such an embodiment is particularly useful in harsh chemical environments in which one wishes to replace the inner glove with a new inner glove while retaining the original outer glove of the protective glove pair.

More substantial mutual attachment of the inner glove to the outer glove is possible by means of interstitching the inner and outer gloves at the wrist portion of the glove pair. Additional points of attachment can, of course, be provided in any area of the inner and outer glove if desired. Other means of attaching the inner glove to the outer glove include heat fusing the two gloves together, gluing, VELCRO attachments, etc.

For some applications, in particular medical uses, the relative position of the inner and outer gloves may be exchanged in the protective glove pair of the present invention. That is, when it is desirable, for example, to sterilize the outer glove and yet still provide additional protection for the body of the hand while retaining fingertip sensitivity, the outer glove may be placed within the inner glove. In this embodiment, the structures of the inner and outer glove and the materials from which the inner and outer gloves may be made are the same as described above.

For example, in this embodiment in which the outer glove is worn next to the skin and is covered by the inner glove, a nylon fabric outer glove having open-ended finger and thumb protective portions is located or inserted within a thin latex rubber or polyurethane inner glove. The inner glove, which is now worn over the top of the outer glove, covers the fingers and fingertips of the hand. This "inverse" embodiment allows for a sterile rubber or polyurethane glove which contacts the patient. Fingertip sensitivity is maintained while providing additional protection against accidental cuts and puncture wounds to the hand which may occur during surgery or medical procedures. This application is particularly important in view of the serious consequences which may result from exposure to infected

blood or body fluids typically encountered in hospital settings.

Obviously, numerous modifications and variations of the present invention are possible in light of the above teachings. It is therefore to be understood that within the scope of the appended claims, the invention may be practiced otherwise than as specifically described herein.

What is claimed as new as desired to be secured by Letters Patent of the U.S. is:

1. A protective glove pair, comprising:
an outer glove and an inner glove within said outer glove, wherein said inner and outer gloves are substantially mutually attached to each other, wherein
said outer glove comprises a glove body and protective finger and thumb portions, said protective portions comprising open-ended tubes from the glove body to cover each of the fingers and thumb to a distance between the metacarpophalangeal joints and the distal knuckle of each finger and thumb, and
said inner glove is flexible and tight fitting to the hand and comprises a natural or synthetic rubber or synthetic polymer.
2. The protective glove pair of claim 1, wherein said outer glove comprises an adjustment means for adjusting the fit of the outer glove to the wearers wrist.
3. The protective glove pair of claim 1, wherein said outer glove is comprised of leather or a durable, natural or synthetic fiber fabric.
4. The protective glove pair of claim 1, wherein the protective finger and thumb portions of said outer glove are provided with removable identified segments which may be cut or removed to provide the desired length of said open-ended tubes.
5. The protective glove pair of claim 1, wherein the palmar area of the body of said outer glove is provided with one or more layers of additional material to increase the frictional characteristics or absorbency of the palmar surface of the outer glove.
6. The protective glove pair of claim 5, wherein said additional material comprises roughened leather or interlocking nylon, or other absorbent material.

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United States Patent [19]
Yang

[11] **Patent Number:** 5,030,229
[45] **Date of Patent:** Jul. 9, 1991

[54] **DISPOSABLE URINARY PAD**

[75] **Inventor:** Ching-Yun M. Yang, Princeton Junction, N.J.

[73] **Assignee:** Chicopee, New Brunswick, N.J.

[21] **Appl. No.:** 464,487

[22] **Filed:** Jan. 12, 1990

[51] **Int. Cl.⁵** A61F 13/16

[52] **U.S. Cl.** 604/385.1; 604/378;
604/370; 604/369

[58] **Field of Search** 606/368, 378, 369, 370,
606/379, 384

[56] **References Cited**

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Primary Examiner—Stephen C. Pellegrino

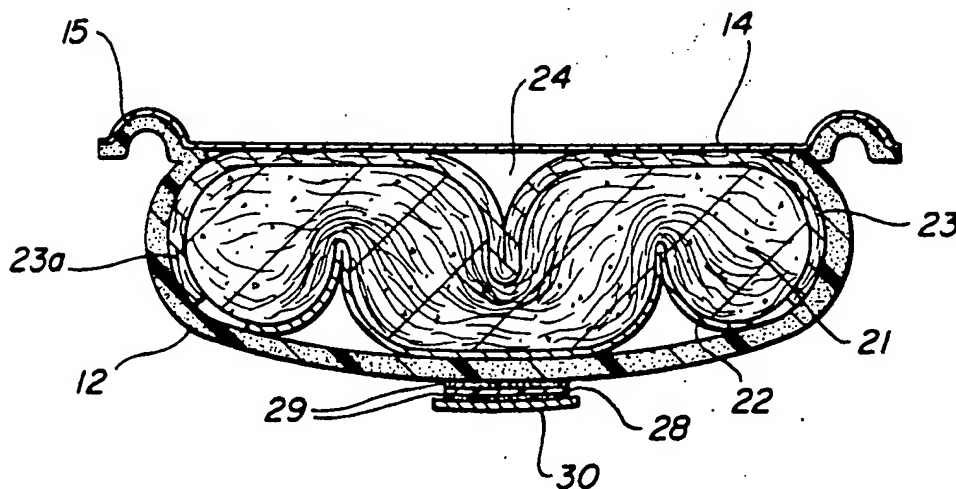
Assistant Examiner—Gary Jackson

Attorney, Agent, or Firm—Jason Lipow

[57] **ABSTRACT**

This invention provides a disposable urinary pad comprising a liquid-impermeable backing, an absorbent core and a liquid permeable facing adhered to the shell so as to entrap the absorbent core therebetween. The absorbent core comprises a web of absorbent fibers and superabsorbent material and has a liquid-permeable transfer layer adjacent to one surface. The absorbent core is pleated, as in an M-configuration, to form therein a center lengthwise channel. The transfer layer, after pleating of the absorbent core, extends down the sides of the core so as to provide a liquid path to the bottom of the core.

17 Claims, 3 Drawing Sheets



8. The urinary pad according to claim 1 wherein said absorbent medium comprises about 50 to about 95% wood pulp and about 50 to about 5% non-cellulosic synthetic fibers.

9. The urinary pad of claim 8 wherein said absorbent medium comprises about 75 to about 85% by weight of wood pulp and about 20 to 25% by weight of non-cellulosic synthetic fibers.

10. The urinary pad according to claim 8 wherein said synthetic fibers are polyethylene fibers.

11. A urinary pad in accordance with claim 8 wherein said absorbent media comprises super absorbent, present in said absorbent medium in the amount of about 10 to about 50% by weight of the wood pulp plus the synthetic fibers.

12. A urinary pad according to claim 11 wherein said super absorbent is sodium acrylate.

13. A urinary pad according to claim 11 wherein said absorbent medium comprises a mixture of wood pulp, synthetic fibers and super absorbent which has been collected on to a layer of tissue and then thermally bonded.

14. A urinary pad according to claim 11 wherein said transfer layer comprises a high loft non-woven synthetic fiber fabric.

15. A urinary pad according to claim 14 wherein said fabric is a polyethylene fabric.

16. A urinary pad according to claim 1 wherein said liquid-permeable facing is selected from films and fabrics of polyester, polyethylene, polypropylene, bi-component fibers, nylon and rayon.

17. A urinary pad according to claim 16 wherein said liquid-permeable facing comprises a thermally bonded web of polyester/polyethylene bicomponent fiber.

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